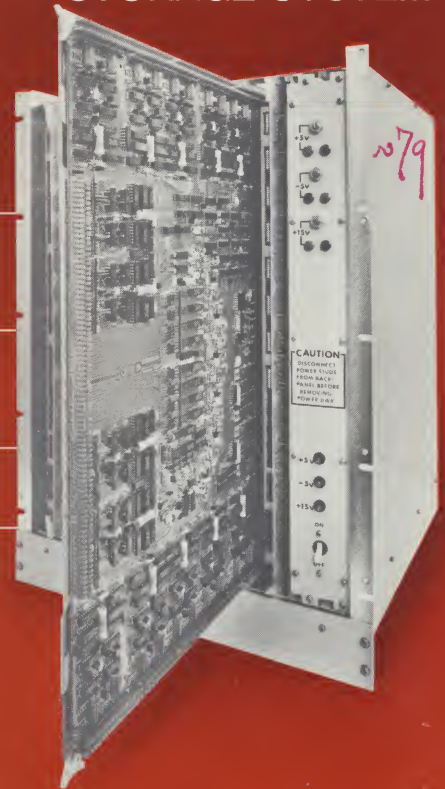


Economic PDP-11/70
main memory.

IMPERIAL TECHNOLOGY'S
MAXIRAN-70
STORAGE SYSTEM

- UP TO 4 MEGABYTES
OF CAPACITY
- INTERLEAVED
OPERATION
- DEFERRED
MAINTENANCE
- LOW COST
- MODULAR FLEXIBILITY



For cost-conscious PDP-11/70 users.



MAXiRAM-70

STORAGE SYSTEM

- Maximum Capacity
- Maximum Economy
- Maximum Reliability
- Maximum Flexibility

The most cost effective main memory available for PDP-11/70 computers.

- Deferred maintenance.
- Capacity up to 4 Megabytes.
- Expansion in 1 Megabyte increments.
- 4 Bytes (36 bits) per word.
- 950 nanosecond effective cycle time.
- Software transparent.
- 2 way interleaving.
- Low cost memory expansion.

A reliable solid state memory, the MaxiRAM-70 features a built-in interface module which attaches to the main bus on DEC's PDP-11/70 computer.

The MaxiRAM main memory responds through the interface in the same manner as DEC's MJ11 storage unit. It may be operated in an interleaved mode for optimum performance.

Modular Flexibility.

The memory storage is packaged in pluggable modules of 262,144 half-words. The 19" chassis can accept up to four pairs of modules. Memory capacity may be field expanded in increments of 262,144 words to a maximum of 1,048,576 words (4 Megabytes).

The chassis also accepts a pluggable interface and maintenance module, as well as a pluggable power supply module. Interconnection to the computer is made through a main bus adapter. Modules are interconnected by means of a printed wire backplane. The rack-mount chassis features built-in, forced-air cooling, making it completely self-contained.

Addressing Capability.

The capacity of any resident memory attached to the computer may be indicated to the MaxiRAM interface by means of a DIP switch setting. This starting address may be on any 64K Byte boundary up to 1 Megabyte. A separate DIP switch setting indicates the capacity of the MaxiRAM storage unit. The ending address of storage is automatically computed by adding the MaxiRAM capacity to the starting address.

The computer has direct access to all address locations from zero to the ending address.

Interleaving Feature.

The MaxiRAM system features two levels of interleaving, chassis and internal.

When the chassis interleave feature is enabled, an equal amount of MaxiRAM memory is interleaved with the resident memory. The internal interleaving feature is automatic. Addressing is alternated between two pairs of MaxiRAM memory modules, if they are available. Any memory capacity for which no corresponding pair of modules exists is addressed in a non-interleaved manner.

The polarity of address interleaving is switch-selectable on the interface module.

Deferred Maintenance.

A unique feature of MaxiRAM-70 enables any contiguous area of its memory to be bypassed. DIP switches may be set to select any two addresses on 64K Byte boundaries. When the deferred maintenance mode is enabled, the memory block between the selected addresses is locked out. All memory above the bypassed block is automatically readdressed to respond starting with the lower of the selected addresses. In this manner, the computer has access to contiguous good memory.

MaxiRAM-70 also features a master "Downgrade" switch which may be used to electrically disconnect the memory from the host processor. This feature facilitates continued computer operation in a downgraded mode, even in the unlikely event of a major MaxiRAM failure.

Total Transparency.

The MaxiRAM-70 is totally transparent to all operating software and diagnostics. It responds to the host processor in exactly the same manner as does the DEC MJ11 series of memory units. Operations performed by the memory system are Read/Restore, Clear/Write and Exchange. The MaxiRAM-70 has an automatic A.C. power fail detection circuit, which alerts the computer and

disables memory accesses in the event of a power interruption.

Comprehensive Display Capability.

The combined interface and maintenance module features a 24 bit LED display. A thumbwheel switch enables the following displays to be selected.

Switch Position	Display
0	Control term & address parity
1	Main bus address
2	Storage address and module selects
3	Data bytes 0 & 1
4	Data bytes 2 & 3

Non-Volatility.

The use of a magnetic storage medium insures complete non-volatility of data. In the event of a loss of power, important data and programs are not lost.

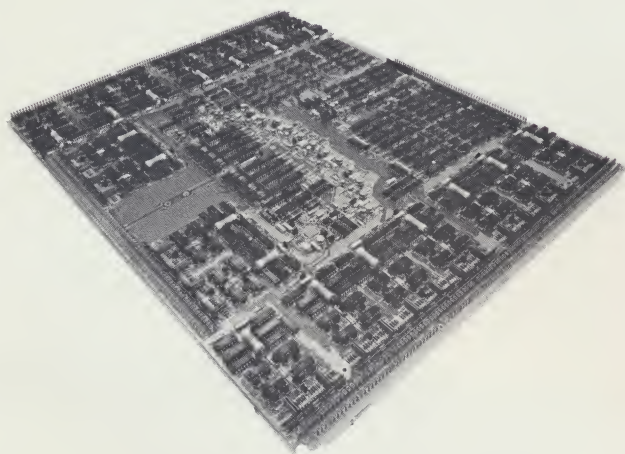
Recovery time from power interruption is, therefore, significantly reduced.

Optimum Reliability & Economy.

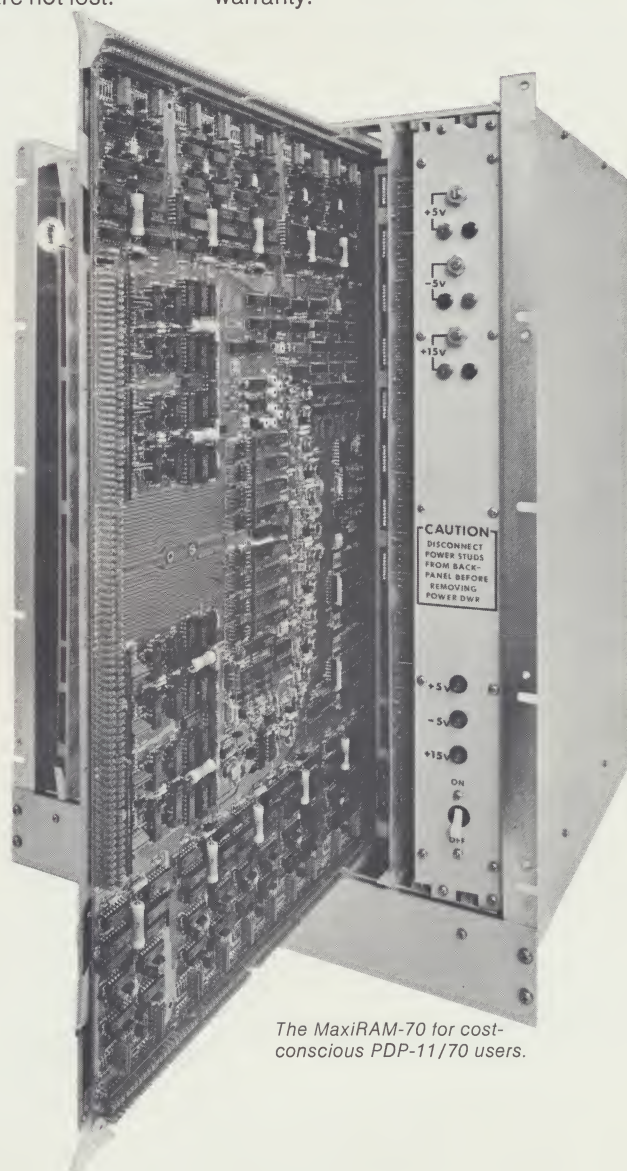
Imperial Technology has advanced the mature technology of ferrite core storage to achieve a dramatic cost breakthrough. By packaging 262,144 halfwords of memory in a single module, significant manufacturing cost savings are achieved. The all solid-state construction of the MaxiRAM-70 assures inherent reliability.

12-Month Warranty.

Imperial Technology is a proven supplier of memory products. All equipment is produced to the highest quality standards. The MaxiRAM Storage System is backed by a full twelve month warranty.



The pluggable, modular construction of MaxiRAM storage modules facilitates easy field expansion and simplifies maintenance.



The MaxiRAM-70 for cost-conscious PDP-11/70 users.

SPECIFICATIONS:

Capacity:	1,048,576 Bytes to 4,194,304 Bytes in increments of 1,048,576 Bytes.
Word Length:	36 bits.
Cycle Time:	0.95 microseconds (effective interleaved) 1.9 microseconds (non-interleaved) 2.0 microseconds (exchange mode).
Access Time:	0.79 microseconds maximum.
Main Bus Interface:	Single unit load receivers. Terminated in cable characteristic impedance. Open collector drivers.
Size:	26.5" (67.31cm) high 19.0" (48.26cm) wide 22.0" (55.88cm) deep
Power:	90—132 VAC or 180—264 VAC, single phase 50 or 60 Hertz. 1 Megaword requires 12 amps at 120V when operated in an interleaved mode.
Operating Environment:	0°C to 50°C ambient temperature. Up to 90% relative humidity with no condensation.

Contact factory for further information.



Imperial Technology, Inc.

831 S. Douglas Street
El Segundo, California 90245
Telephone: (213) 679-9501
Telex: 664469